

1           1.       An exercise device configured to enable the interaction of a user, the  
2 exercise device comprising:

3                   (a) an exercise mechanism comprising a movable element for movement in  
4 performance of exercise by a user, the exercise mechanism having one or more  
5 operating parameters;

6                   (b) interface means, communicating with the exercise mechanism, for  
7 gathering a first signal from the user;

8                   (c) communicating means, communicating with the interface means, for  
9 receiving a packetized second signal; and

10                   (d) means, responsive to the packetized second signal, for controlling the  
11 operating parameters of the exercise mechanism.

12  
13           2.       An exercise device as recited in claim 1, wherein the exercise device is  
14 configured to enable a user to interact in real-time communication, the first signal  
15 comprising a real time signal and the second signal comprising a real time signal and the  
16 means for controlling the operating parameters of the exercise mechanism controlling the  
17 operating parameters in real time.

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19           3.       An exercise device as recited in claim 1, wherein the packetized second  
20 signal comprises a signal selected from the group consisting of an audio signal, a  
21 visual signal, and a control signal.

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4. An exercise device as recited in claim 3, wherein the control signal is synchronized with at least one of the audio signal and the visual signal.

5. An exercise device as recited in claim 3, wherein a trainer promulgates the control signal.

6. An exercise device as recited in claim 3, wherein a communication system promulgates the control signal.

7. An exercise device as recited in claim 3, wherein a third party promulgates the control signal.

8. An exercise device as recited in claim 1, wherein the interface means is selected from the group consisting of: (i) one or more audio input devices; and (ii) one or more video output devices.

9. An exercise device as recited in claim 1, wherein the interface means comprises one or more controllers.

10. An exercise device as recited in claim 1, wherein the interface means comprises a video camera integrally formed with the exercise device.

11. An exercise device as recited in claim 1, wherein the communicating means enables transmission of the first signal.

12. An exercise device as recited in claim 1, wherein the communicating means comprises one or more processors adapted to packetize the first signal gathered by the interface means.

13. An exercise device as recited in claim 1, wherein the communicating means is selected from the group consisting of (i) a translator device; and (ii) a computer.

14. An exercise device as recited in claim 1, wherein the communicating means receives the packetized second signal including synchronized control signals from a communication system that is in communication with a trainer.

15. An exercise device as recited in claim 1, wherein the communicating means communicates with a communication system that is configured to generate one or more second signals.

16. An exercise device as recited in claim 15, wherein the communication system comprises memory configured to store the second signal.

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17. An exercise device as recited in claim 1 wherein the first signal comprises one or more signals representative of any measurable parameter of the exercise device.

18. An exercise device as recited in claim 1, wherein the first signal comprises one or more signals representative of any measurable parameter of the user of the exercise device.

19. An exercise device as recited in claim 1, wherein the first signal represents the status of the exercise device thereby activating the communication means to receive the packetized second signal.

20. An exercise device as recited in claim 19, wherein the status of the exercise device is selected from the group consisting of: (i) an active signal; (ii) inactive signal; and (iii) standby signal.

21. An exercise device as recited in claim 1, further comprising means for reproducing the second signal.

22. An exercise device as recited in claim 21, wherein the means for reproducing the second signal comprises one or more audio output devices and one or more video output devices.

1 23. An exercise device as recited in claim 21, wherein the means for  
2 reproducing the second signal comprises an output device selected from the group  
3 consisting of an audio output device and a video output device.  
4

5 24. An exercise device as recited in claim 1, wherein the means for controlling  
6 the operating parameters of the exercise mechanism in comprises one or more  
7 controllers configured to separate the synchronized control signal from the second  
8 signal.  
9

10 25. An exercise device as recited in claim 24, wherein the means for controlling  
11 further comprises one or more actuators activated by the one or more controllers in  
12 response to the synchronized control signal.  
13

14 26. An exercise device as recited in claim 1, wherein the packetized second  
15 signal comprises a signal selected from the group consisting of: (i) a packetized  
16 control signal; and (ii) a packetized control signal and a signal from a  
17 communication system.  
18

19 27. An exercise device as recited in claim 1, wherein the packetized second  
20 signal comprises a packetized control signal and a signal from a trainer, the signal  
21 from the trainer comprising a signal selected from the group consisting of an audio  
22 signal and a visual signal.  
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28. An exercise device as recited in claim 27, wherein receipt of said packetized second signal is substantially uninterrupted during receipt of said control signal.

1 29. An exercise device configured to enable interaction of a user, the exercise  
2 device comprising:

3 (a) an exercise mechanism comprising a movable element for  
4 movement in performance of exercise by a user, the exercise mechanism having  
5 one or more operating parameters;

6 (b) at least one user interface device, communicating with the exercise  
7 mechanism, the at least one interface device gathering a first signal from the user;

8 (c) a communicating mechanism, communicating with the user  
9 interface device, the communicating mechanism receiving a packetized second  
10 signal; and

11 (d) a controller, responsive to the packetized second signal, configured  
12 to control the operating parameters of the exercise mechanism.

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14 30. An exercise device as recited in claim 29, wherein the at least one user  
15 interface device is selected from the group consisting of one or more audio input  
16 devices and one or more video input devices.

17  
18 31. An exercise device as recited in claim 29, wherein the communicating  
19 mechanism comprises an iFit.com button, the iFit.com button adapted to initiate  
20 communication with a communication system that enables real-time transmission  
21 of the first signal to a trainer.

1 32. An exercise device as recited in claim 31, wherein the communicating  
2 mechanism enables transmission of the first signal, evaluates the first signal and  
3 generates the second signal based upon the first signal.  
4

5 33. An exercise device as recited in claim 32, wherein the first signal  
6 comprises signals that represent one or more parameters of the user exercising on  
7 the exercise device.  
8

9 34. An exercise device as recited in claim 33, wherein the one or more  
10 parameters comprise any measurable parameter of the user of the exercise device.  
11

12 35. An exercise device as recited in claim 29, wherein the communicating  
13 mechanism comprises a translator device and computer communicating with the  
14 exercise mechanism.  
15

16 36. An exercise device as recited in claim 29, further comprising a control  
17 panel, the control panel being configured to enable a user to input the first signal  
18 and to receive the second signal.  
19

20 37. An exercise device as recited in claim 29, wherein said at least one interface  
21 device comprises a manual override control, the manual override control being  
22 configured to prevent the means, responsive to the packetized second control  
23  
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signal, for controlling the operating parameters of the exercise mechanism in real-time from controlling the operating parameters of the exercise mechanism.

38. An exercise device as recited in claim 29, wherein the exercise device further comprises a safety mechanism, said safety mechanism capable of manipulating the operating parameters of the exercise mechanism in the event that the packetized second control signal is interrupted.

39. An exercise device as recited in claim 29, wherein the first signal comprises a real time signal, the communicating mechanism receives a packetized second real time signal and the controller is configured to control the operating parameters of the exercise mechanism in real time.

40. An exercise device as recited in claim 29, wherein the exercise device further comprises one or more sensors, said one or more sensors being configured to sense the one or more operating parameters of the exercise mechanism.

41. An exercise device as recited in claim 29, wherein the exercise device further comprise one or more sensors, said one or more sensors being configured to identify whether a user is using the movable element.

42. An exercise device as recited in claim 41, wherein the one or more sensors identify whether the user is an adult or juvenile user.

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2 43. An exercise device as recited in claim 29, wherein the exercise device is a  
3 device selected from the group consisting of a master device, a slave device, and a  
4 sub-slave device.

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6 44. An exercise device a recited in claim 43, wherein the exercise device is a  
7 slave device and is configured to control one or more sub-slave devices.

8  
9 45. An exercise device as recited in claim 29, wherein the exercise device  
10 further comprise a diagnostic control, said diagnostic control activating a  
11 connection with a communication system to check the status of the exercise device.

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13 46. An exercise device as recited in claim 45, wherein the diagnostic control  
14 activates a downloading process to retrieve one or more software updates the from  
15 communication system.

16  
17 47. An exercise device as recited in claim 29, wherein the exercise device  
18 further comprises a scaling control, the scaling control being configured to enable a  
19 user to select a value representative of the proportional change to be made to the  
20 packetized control signal received by the communicating means.

21  
22 48. An exercise device as recited in claim 29, wherein the communicating  
23 mechanism enables transmission of the first signal.  
24

1 49. An exercise device configured to enable a user to receive workout-related  
2 information, comprising:

3 (a) an exercise mechanism comprising a movable element for  
4 movement in performance of exercise by a user;

5 (b) a user interface device communicating with the exercise mechanism  
6 and configured to gather one or more user control signals from the user;

7 (c) a communicating mechanism in communication with the user  
8 interface device and adapted to enable transmission of the user control signals to a  
9 communication system, the communicating mechanism being further adapted to  
10 receive a packetized second signal including synchronized control signals from the  
11 communication system;

12 (d) means for reproducing the second signal; and

13 (e) means, responsive to the synchronized control signals carried by the  
14 second signal, for controlling the operating parameters of the exercise mechanism.  
15

16 50. An exercise device as recited in claim 49, wherein the user interface device  
17 comprises one or more manually activated controls configured to generate the user  
18 control signals.

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20 51. An exercise device as recited in claim 49, wherein the user interface device  
21 comprises a translator device and a computer.  
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1 52. An exercise device as recited in claim 49 wherein the second signal  
2 comprises one or more audio and video signals and the synchronized control signal.  
3

4 53. An exercise device as recited in claim 49, wherein the communication  
5 system comprises:

6 (a) one or more storage devices adapted to store the one or more audio  
7 and video signals;

8 (b) a control signal generator configured to generate one or more  
9 synchronized control signals; and

10 (c) a control processor configured to synchronize the synchronized  
11 controls signals with the one or more audio and video signals and deliver the  
12 second control signal to the communication mechanism.  
13

14 54. An exercise device as recited in claim 49, wherein the communication  
15 system receives the one or more audio and video signals and the synchronized  
16 control signals from an exercise device of a trainer.  
17

18 55. An exercise device as recited in claim 49, wherein the communication  
19 system receives the synchronized control signals from a third party communicating  
20 with the communication system.  
21

22 56. An exercise device as recited in claim 49, wherein the exercise device  
23 communicates with the communication system via a network.  
24

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58. An exercise device as recited in claim 49, wherein the communication system comprises a web site comprising one or more web pages, the web site being configured to assist with the transmission of the packetized second signal.

59. An exercise device as recited in claim 49, wherein the means for reproducing the second signal comprises one or more audio output devices and one or more video output devices.

60. An exercise device as recited in claim 59, wherein the one or more video output devices comprises one or more video displays.

61. An exercise device as recited in claim 49, wherein the communication system analyses the user control signals and generates the packetized second signals based upon the analysis of the user control signals.





1 66. An exercise device configured to enable a user thereof to interact with a  
2 trainer in real-time communication via a communication line, comprising:

3 (a) an exercise mechanism comprising a movable element for  
4 movement in performance of exercise by a user;

5 (b) a user interface device configured to gather a first real-time signal  
6 from the user;

7 (c) a communication interface cooperating with the user interface  
8 device and configured to enable real-time communication of the first real-time  
9 signal to the trainer and subsequently receiving a second real-time signal from the  
10 trainer through a communication system, the communication system being adapted  
11 to generate one or more control signals that are synchronized with the second real-  
12 time signal;

13 (d) means for reproducing the second real-time signal; and

14 (e) means, responsive to the one or more control signals, for controlling the  
15 operating parameters of the exercise device in real-time.  
16

17 67. An exercise device as recited in claim 66, wherein the second real-time  
18 signal comprises programming selected from the group consisting of an audio  
19 broadcast, a video broadcast, a combined audio and video broadcast, a webcast, a  
20 live broadcast, or a prerecorded broadcast.

21  
22 68. An exercise device as recited in claim 66, wherein the second real-time  
23 signal comprises programming that is transmitted via a transmission media selected  
24



1 from the group consisting of the air waves, cable, satellite, the internet, radio  
2 frequency, wireless, or infra-red.

3  
4 69. An exercise device as recited in claim 66, wherein the means for  
5 reproducing the another audio and video signal is integrated into the exercise  
6 device.

7  
8 70. An exercise device as recited in claim 66, wherein the means for  
9 reproducing the another audio and video signal is separate and distinct from the  
10 exercise device.

11  
12 71. An exercise device as recited in claim 69 or 70, wherein the means for  
13 reproducing the another audio and video signal comprises a television.

14  
15 72. An exercise device as recited in claim 69 or 70, wherein the means for  
16 reproducing the another audio and video signal comprises an audio output device  
17 and a video output device.

18  
19 73. An exercise device as recited in claim 66, wherein the means for controlling  
20 comprises:

21 (a) means for decoding the control signals; and

22 (b) means, electrically coupled to the decoding means, for driving the  
23 movable element in response to the decoded control signal.

24

1 74. An exercise device as recited in claim 66, wherein the means for controlling  
2 comprises:

3 (a) means for decoding the control signals having an input and an  
4 output; and

5 (b) means, electrically coupled to the output of the decoding means, for  
6 driving the moveable element in response to the decoded control signal.

7  
8 75. An exercise device as recited in claim 66, wherein the reproducing means  
9 comprises a loudspeaker.

10  
11 76. An exercise device as recited in claim 66, wherein the reproducing means  
12 comprises an RF transmitter configured to transmit the second signal to an output  
13 device.

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15 77. An exercise device as recited in claim 66, wherein the reproducing means  
16 comprises an infrared transmitter configured to transmit the second signal to an output  
17 device.



1 82. An exercise device as recited in claim 78, wherein the exercise mechanism  
2 includes one or more actuators configured to vary one or more operating  
3 parameters of the exercise mechanism.  
4

5 83. An exercise device as recited in claim 78, wherein the control means  
6 comprises at least one decoder configured to decode the one or more packetized  
7 control signal and at least one processor configured to activate the one or more  
8 actuators in response so the one or more decoded control signals.  
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10 84. An exercise device as recited in claim 78, wherein the communication  
11 system comprises:

12 (a) one or more storage devices adapted to store the one or more audio and  
13 video signals;

14 (b) a control signal generator configured to generate one or more control  
15 signals; and

16 (c) a control processor configured to synchronize and packetize the controls  
17 signals with the one or more audio and video signals and deliver the packetized  
18 control signal to the exercise mechanism.  
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